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| 10/540,687 | 06/24/2005 | Rob Otte | NL 021428 | 8981 |

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P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

| EXAMINER | |
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| NWAKAMMA, CHIBUIKE K | |

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| 2627 | |

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/540,687 | OTTE ET AL. | |
| | Examiner | Art Unit | |
| | CHIBUIKE K. NWAKAMMA | 2627 | |

***-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --***

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on _08 February 2008_.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) _1-16_ is/are pending in the application.

4a) Of the above claim(s) _3_ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1,2 and 4-16_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _02/08/2008_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

## DETAILED ACTION

1. The disclosure is objected to because of the following informalities: The specification does not show the headings for Background of Invention, Brief Summary of Invention, Brief Description of Drawings, and Detailed Description of Invention. Appropriate correction is required.

2. The following guidelines illustrate the preferred layout for the specification of a utility application. These guidelines are suggested for the applicant's use.

**Arrangement of the Specification**

As provided in 37 CFR 1.77(b), the specification of a utility application should include the following sections in order. Each of the lettered items should appear in upper case, without underlining or bold type, as a section heading. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

(a) TITLE OF THE INVENTION.
(b) CROSS-REFERENCE TO RELATED APPLICATIONS.
(c) STATEMENT REGARDING FEDERALLY SPONSORED RESEARCH OR DEVELOPMENT.
(d) THE NAMES OF THE PARTIES TO A JOINT RESEARCH AGREEMENT.
(e) INCORPORATION-BY-REFERENCE OF MATERIAL SUBMITTED ON A COMPACT DISC.
(f) BACKGROUND OF THE INVENTION.
    (1) Field of the Invention.
    (2) Description of Related Art including information disclosed under 37 CFR 1.97 and 1.98.
(g) BRIEF SUMMARY OF THE INVENTION.
(h) BRIEF DESCRIPTION OF THE SEVERAL VIEWS OF THE DRAWING(S).
(i) DETAILED DESCRIPTION OF THE INVENTION.
(j) CLAIM OR CLAIMS (commencing on a separate sheet).
(k) ABSTRACT OF THE DISCLOSURE (commencing on a separate sheet).
(l) SEQUENCE LISTING (See MPEP § 2424 and 37 CFR 1.821-1.825. A "Sequence Listing" is required on paper if the application discloses a nucleotide or amino acid sequence as defined in 37 CFR 1.821(a) and if the required "Sequence Listing" is not submitted as an electronic document on compact disc).

3. Claim 8 is objected to because of the following informalities:

Claim 8 recites, “an actuator driver circuit:

a variable negative internal resistance including an input resistor a first resistor and a second resistor; and

at least once switch for selective connecting the input resistor to at least one of the first resistor and the second resistor”.

**However**, claim 8 should recite similar to: --an actuator driver circuit <u>comprising</u>:

a variable negative internal resistance including an input resistor a first resistor and a second resistor; and

at least <u>one</u> switch for <u>selectively</u> connecting the input resistor to at least one of the first resistor and the second resistor-- Appropriate correction is required.

## ***Claim Rejections – 35 USC § 102***

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1-2 and 8-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Kojima (US 6118613).

Regarding claim 1, Kojima teaches a method for driving an actuator (Figs. 5-6, elements 100, 1 provides method of driving an actuator), the method comprising the act of changing electrical damping 36 of the actuator 1 by selectively activating at least one switch 47 for switching in or out an electrical damping element 36 providing a negative resistance (Fig. 5 and Col. 12, lines 10-15, 24-40. The impedance circuit 47 is equated

as a switch and is a component of the electrical damping element (negative resistance circuit 36). An activation process is attained when the capacitor is considered open (i.e., switching out), thereby changing element 36 into short-circuit. Negative resistance is provided, see formulae 19).

Regarding claim 2, Kojima teaches the method of claim 1, wherein the electrical damping of the actuator (Fig. 5, elements 36, 1) is changed by changing an electrical resistance of an actuator drive loop (Col. 12, lines 63-67…current value of actuator is varied by $R_c$. It is clear that the value of $R_c$ changes where $R_c$ represents the electrical resistance of the actuator drive loop).

Regarding claim 8, Kojima teaches an actuator driver circuit (Fig. 5, elements 100, 1):

a variable negative internal resistance ($R_n$) including an input resistor ($R_i$), a first resistor I and a second resistor ($R_o$); and

at least one switch (Fig. 5, element 47) for selectively connecting the input resistor ($R_i$) to at least one of the first resistor I and the second resistor ($R_o$); (Formulae 19; Col. 12, lines 10-15, 24-40. The impedance circuit 47 is equated as a switch for when capacitor $C_i$ is considered open (i.e., switching out), the circuit is short-circuited. So, it is clear that when the capacitor is not open (i.e., switching in), the circuit is not short-circuited. The process of short-circuiting and non-short circuiting is a selective means).

Regarding claim 9, Kojima teaches an actuator driver circuit (Fig. 5, elements 100, 1) comprising a drive signal source (Fig. 5, element 5) and an electrical damping element (Fig. 5, element 36) having a negative resistance (Col. 12, lines 35-40) connected between the actuator (Fig. 5, element 1) and ground .

Regarding claim 10, Kojima teaches an actuator of claim 9, comprising controllable means (Fig. 5, element 47. The capacitor $49C_i$ is part of the negative resistance circuit 36, i.e., electrical damping element, it can be considered open hence, current does not flow [col. 12, lines 13-14] in which case short-circuit occurs [col. 12, line25]. It is clear that the capacitor acts as a switch as it has the capability of being considered open/not open) for selectively switching said electrical damping element into or out of a signal path from the actuator (Fig. 5, element 1) to the ground.

Regarding claim 11, Kojima teaches an actuator of claim 9, comprising controllable means (Fig. 5, element 47. The capacitor $49C_i$ is part of the negative resistance circuit 36, i.e., electrical damping element, it can be considered open hence, current does not flow [col. 12, lines 13-14] in which case a short-circuit occurs [col. 12, line25]. It is clear that the capacitor acts as a switch as it has the capability of being considered open/not open) for selectively switching components of said electrical damping element into or out of operation in order to adjust damping properties of the electrical damping element (Fig. 5, element 36).

Regarding claim 12. Kojima teaches an actuator assembly (Fig. 5) comprising:

an actuator (Fig. 5, element 1),

a drive signal source (Fig. 5, element 5), and an electrical damping element (fig. 5, element 36) having a negative resistance (col. 12, lines 35-40) connected between the actuator (Fig. 5, element 1) and ground.

Regarding claim 13, Kojima teaches the actuator of claim 12, further comprising controllable means (Fig. 5, element 47. The capacitor $49C_i$ is part of the negative resistance circuit 36, i.e., electrical damping element, it can be considered open hence, current does not flow [col. 12, lines 13-14] in which case a short-circuit occurs [col. 12, line25]. It is clear that the capacitor acts as a switch as it has the capability of being considered open/not open) for selectively switching said electrical damping element into or out of a signal path between actuator (Fig. 5, element 1) and the ground.

Regarding claim 14, Kojima teaches the actuator of claim 12, further comprising controllable means (Fig. 5, element 47. The capacitor $49C_i$ is part of the negative resistance circuit 36, i.e., electrical damping element, it can be considered open hence, current does not flow [col. 12, lines 13-14] in which case a short-circuit occurs [col. 12, line25]. It is clear that the capacitor acts as a switch as it has the capability of being considered open/not open. When the capacitor is open/not open, damping properties of element 36 are adjusted) for selectively switching components of said electrical damping element into or out of operation in order to adjust damping properties of the electrical damping element.

## ***Claim Rejections – 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 15-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima (US 6118613) in view of Enomoto (US 4783774).

Regarding claim 15 Kojima discloses an actuator driver circuit as discussed in claim 8.

Kojima does not disclose disc drive apparatus for reading or writing a disc,
a pickup element and at least one actuator for manipulating the pickup element;
and wherein the disc drive apparatus comprises an actuator driver circuit according to claim 8. **However**, Kojima does disclose an actuator used for driving an optical device (Col. 1, lines10-11).

Enomoto discloses a disc drive apparatus for reading or writing a disc (Fig. 4 and Col. 1, lines 7-8), the apparatus comprising a pickup element (Fig. 4, element 13) and at least one actuator (Fig. 5, elements 13h, 13i) for manipulating the pickup element (Fig. 5, element 13),

wherein the disc drive apparatus (Fig. 4) comprises an actuator driver circuit (Fig. 4, elements 16, 13; Col. 7, lines 5-16).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Kojima with the teachings Enomoto by disclosing

a disc drive apparatus comprising an actuator driver circuit and a pickup element, so, to improve on the efficiency at driving the load, i.e., pickup drive motor, by a pulse width modulation signal, in respect of the conversion efficiency from electric energy to kinetic energy (Enomoto; Col. 2, line 67-Col. 3, line 2).

Regarding claim 16, Kojima in view of Enomoto further discloses the disc drive apparatus (Fig. 4),

Enomoto further teaches, wherein said pickup element (Fig. 5, element 13) is an objective lens (Fig. 5, element 13f) of an optical system for scanning tracks of an optical disc (Col. 7, lines 20-59. The objective lens 13f is provided in the optical pickup 13, therefore, the optical pickup is an objective lens).

7. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima (Patent No. 6118613) in view of Hammond et al (Patent No. 5635848).

Regarding claim 4, Kojima discloses the method driving an actuator as discussed in claim 1,

wherein the electrical damping of the actuator (Fig. 5, elements 100 and 1) deviates from a target position and wherein the electrical damping of the actuator has recovered the target position (Col. 11, line 18-Col. 13 line 7. When a circuit is shorted, i.e., Open, a target position or path has been deviated to another position or path. And when the circuit is not in a shorted state, i.e., Closed, or it is un-shorted, then it has recovered the target position. The state of being shorted read on target position during

normal operative condition and the state of not being shorted read on recovered target position during normal operative condition).

Kojima does not disclose wherein the electrical damping of the actuator is increased or decreased.

Hammond discloses wherein the electrical damping of the actuator is increased or decreased (Col. 9, lines 3-24. When the position error of the actuator, i.e. focus error, is greater than the reference value error, i.e., threshold, then, the electrical damping of actuator is increased and vice-versa).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Kojima with the teachings of Hammond by disclosing wherein the electrical damping of the actuator is increased with respect to the damping during normal operative conditions when an actuator position deviates from a target position, and wherein the electrical damping of the actuator is decreased to the normal damping when the actuator has recovered the target position, so, to control the speed at which the probe is actuated as well as the motion characteristics of the actuator in an open loop system, thereby preventing damage to the surface and a worst-case allowance for settling time because the actual position of probe is not known. Moreover, in a close loop system, avoiding high frequency scraping of surface while the system oscillates to make positional corrections (Hammond; Col. 1, line 61-Col. 2, line 13).

8. Claims 5-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kojima (US 6118613) in view of Enomoto (Patent No. 4783774) and Hammond et al (Patent No. 5635848).

Regarding claim 5, Kojima discloses the method of driving an actuator as discussed in claim 1.

Kojima does not disclose an optical disc drive for radially driving an objective lens radial actuator,

wherein the electrical damping of the radial actuator is increased when a radial error signal indicates a radial error exceeding a predefined threshold, or when the radial error signal becomes absent; and

wherein the electrical damping of the radial actuator is decreased to the normal damping when the radial error signal indicates said radial error decreasing below said predefined threshold, or when the radial error signal returns, respectively.

Enomoto discloses optical disc drive (Fig. 4 and Col. 5, lines 10-12) for radially driving an objective lens focus actuator (Col. 7, lines 33-59).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Kojima with the teachings of Enomoto to disclose an optical disc drive for radially driving an objective lens focus actuator, so, to achieve higher efficiency of a power conversion from electric energy to kinetic energy when pulse width modulation technique is a applied (Enomoto; Col. 2, lines 53-58).

Kojima in view of Enomoto does not disclose wherein the electrical damping of the radial actuator is increased when a radial error signal indicates a radial error exceeding a predefined threshold, or when the radial error signal becomes absent; and

wherein the electrical damping of the radial actuator is decreased to the normal damping when the radial error signal indicates said radial error decreasing below said predefined threshold, or when the radial error signal returns, respectively.

Hammond discloses position error Xerr, of actuator, i.e., radial error greater than a reference value, Xerr, i.e., predefined threshold (Col. 9, lines 3-24), and
position error Xerr, of actuator, i.e., radial error less than a reference value, Xerr,
i.e., predefined threshold (Col. 9, lines 3-24).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Kojima in view of Enomoto with the teachings of Hammond by disclosing electrical damping of the focus actuator being increased when a focus error signal exceeds a predefined threshold and electrical damping of the focus actuator being decreased when the focus error signal decreases below said predefined threshold, so, to control the speed at which the probe is actuated as well as the motion characteristics of the actuator in an open loop system, thereby preventing damage to the surface and a worst-case allowance for settling time because the actual position of probe is not known. Moreover, in a close loop system, avoiding high-frequency scraping of surface while the system oscillates to make positional corrections (Hammond; Col. 1, line 61-Col. 2, line 13).

Regarding claim 6, Kojima discloses the method of driving an actuator as discussed in claim 1.

Kojima does not disclose an optical disc drive for axially driving an objective lens focus actuator, wherein the electrical damping of the focus actuator is increased when a

focus error signal indicates a focus error exceeding a predefined threshold, or when the focus error signal becomes absent; and

wherein the electrical damping of the focus actuator is decreased to the normal damping when the focus error signal indicates said focus error decreasing below said predefined threshold, or when the focus error signal returns, respectively.

Enomoto discloses optical disc drive (Fig. 4 and Col. 5, lines 10-12), for axially driving an objective lens focus actuator (Col. 7, lines 33-59).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Kojima with the teachings of Enomoto, i.e., to disclose an optical disc drive for axially driving an objective lens focus actuator, so, to achieve higher efficiency of a power conversion from electric energy to kinetic energy when pulse width modulation technique is a applied (Enomoto; Col. 2, lines 53-58).

Kojima in view of Enomoto does not disclose, wherein the electrical damping of the focus actuator is increased when a focus error signal indicates a focus error exceeding a predefined threshold, or when the focus error signal becomes absent; and

wherein the electrical damping of the focus actuator is decreased to the normal damping when the focus error signal indicates said focus error decreasing below said predefined threshold, or when the focus error signal returns, respectively.

Hammond discloses position error Xerr, of actuator, i.e., focus error greater than a reference value, Xerr, i.e., predefined threshold (Col. 9, lines 3-24), and position error Xerr, of actuator, i.e., focus error less than a reference value, Xerr, i.e., predefined threshold (Col. 9, lines 3-24).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Kojima in view of Enomoto with the teachings of Hammond by disclosing electrical damping of the focus actuator being increased when a focus error signal exceeds a predefined threshold and electrical damping of the focus actuator being decreased when the focus error signal decreases below said predefined threshold, so, to control the speed at which the probe is actuated as well as the motion characteristics of the actuator in an open loop system, thereby preventing damage to the surface and a worst-case allowance for settling time because the actual position of probe is not known. And in a close loop system, avoiding high-frequency scraping of surface while the system oscillates to make positional corrections (Hammond; Col. 1, line 61-Col. 2, line 13).

Regarding claim 7, Kojima discloses the method of driving an actuator as discussed in claim 1.

Kojima does not disclose an optical disc drive for radially driving an objective lens radial actuator or for axially driving an objective lens focus actuator, wherein the electrical damping of the actuator is increased in response to a command indicating a jump to another track, or during a power-up phase, and wherein the electrical damping of the actuator is decreased to the normal damping when the new target track has been reached or when the power-up phase has ended, respectively.

Enomoto discloses optical disc drive (Col. 5, lines 10-12; i.e., optical information reproducing apparatus), for radially driving an objective lens focus actuator (Col. 7, lines 33-59) and

a command indicating a track jump (Col. 8, lines 18-19).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Kojima with the teachings of Enomoto, i.e., to disclose an optical disc drive for radially driving an objective lens focus actuator and a command indicating track jump, so, to achieve higher efficiency of a power conversion from electric energy to kinetic energy when pulse width modulation technique is a applied (Enomoto; Col. 2, lines 53-58).

Kojima in view of Enomoto does not disclose wherein the electrical damping of the actuator is increased and wherein the electrical damping of the actuator is decreased.

Hammond discloses wherein the electrical damping of the actuator is increased and wherein the electrical damping of the actuator is decreased (Col. 9, lines 3-25. When the position error of the actuator, i.e., focus error, is greater than the reference value, i.e. threshold, then, the electrical damping of actuator is increased and vice-versa).

Therefore, it would have been obvious to one of ordinary skill in the art to modify Kojima in view of Enomoto with the teachings of Hammond by disclosing electrical damping of the focus actuator being increased in response to a command indicating a jump to another track when a focus error signal exceeds a predefined threshold and electrical damping of the focus actuator being decreased to the normal damping when the new target track has been reached, i.e., the focus error signal decreases below said predefined threshold, so, to control the speed at which the probe is actuated as well as the motion characteristics of the actuator in an open loop system, thereby preventing

damage to the surface and a worst-case allowance for settling time because the actual position of probe is not known. Moreover, in a close loop system, avoiding high frequency scraping of surface while the system oscillates to make positional corrections (Hammond; Col. 1, line 61-Col. 2, line13).

### *Response to Arguments*

9. Applicant's arguments filed February 8, 2008 with regards to claims 1-16 have been fully considered but they are not persuasive.

10. On page 12-13 of applicant's response, Applicant argues that Kojima's "negative resistance circuits are operated based on the frequency of the signal source being higher or lower than a cut-off frequency" and as such is "in stark contrast" to applicant's invention "as recited in independent claim 1, specifically:

> changing electrical damping of the actuator by selectively activating at least one switch for switching in or out an electrical damping element providing a negative resistance.

Therefore, Applicant concludes that "a switch which is selectively activated for switching in or out an electrical damping element providing a negative resistance is nowhere taught or suggested in Kojima".

The Examiner respectfully disagrees with applicant's argument because Kojima's Fig. 5 comprises a switch (impedance circuit 47). The impedance circuit 47 comprises a resistor and a capacitor and when the frequency of the signal voltage $E_s$ of the signal source 5 is lower than the cut-off frequency, which is determined by the resistor and capacitor of the impedance circuit 47, the capacitor can be considered open, hence, current does not flow through the resistor 46 (col. 12, lines 10-15). The Examiner

recognizes that in this instance, the capacitor acts as a switch because when the capacitor is considered open, the circuit is said to be short-circuited (col. 12, lines 25-26) as no current flows through. It is also clear from the above citations and figure that the capacitor can be also be considered not open, in which case the circuit is not short-circuited and current flows through. So, the short circuit functioning is a switch and therefore, element 47 is a switch for switching in and out (i.e., capacitor open/not open) and electrical damping element (negative resistance circuit 36) providing a negative resistance (Formulae 19; col. 12, lines 35-40).

11. On page 13 of applicant's response, applicant argues that the recitation in Independent claim 8, specifically recites:

at least once switch for selective connecting the input resistor to at least one of the first resistor and the second resistor.

Therefore, Applicant concludes that "a switch which is selectively activated for connecting the input resistor to at least one of the first resistor and the second resistor is nowhere taught or suggested in Kojima.

The Examiner respectfully disagrees with applicant's argument for the same reasons as given above for the independent claim 1 and the explanation provided in the rejection of independent claim 8.

12. On page 13-14 of applicant's response, applicant argues that the recitation in independent claim 9 and claim 12 specifically recite:

an electrical damping element having a negative resistance connected between the actuator and ground.

Therefore, Applicant concludes that “these features are nowhere taught or suggested in Kojima, Enomoto and Hammond, alone or in combination. Rather, the Kojima negative resistance circuits 36, 37 are connected between the actuator and a signal source”.

The Examiner respectfully disagrees with applicant’s argument because Kojima’s Fig. 5 discloses a negative resistance circuit 36 (electrical damping element) having a negative resistance (Formulae 19; col. 12, lines 35-40) connected between actuator (Fig. 5, element 1) and ground (see the symbol below elements 5, 30, and 49Ci).

13. The rejection of claims 2, 4-7, 10-11, and 13-16 are maintained as they depend on a rejected base claim (independent claims 1, 8, 9, and 12).

### ***Conclusion***

14. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHIBUIKE K. NWAKAMMA whose telephone number is (571)270-3458. The examiner can normally be reached on Mon-Thur and Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa Nguyen can be reached on 5712727579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/C. K. N./
Examiner, Art Unit 2627

05/29/2008

/William J. Klimowicz/
Primary Examiner, Art Unit 2627